July XX, 2003

MEMORANDUM FOR: For the Record

FROM: RADM Nicolas A. Prahl, NOAA
Director, Marine Operations Center

SUBJECT: NMAO Small Boat Policy

The safety of the NOAA fleet is one of my top concerns. Accordingly, I am presenting this policy on Small Boat operations with the expectation that Commanding Officers will make every effort to understand this document in its entirety and make operational and administrative changes as necessary. This policy enhances the way we presently conduct business in several important ways including:

- A formal certification documentation process for all NOAA Small Boat Coxswains and Small Boat Crewmembers.
- Requirement for the embarked scientific party to provide proof of certification within cruise instructions
- Enhanced training requirements
- Establishing formal guidelines for the operation of science program provided small boats

All commands will have one year after the date of this memo to comply with the certification requirements of this policy.

Attachment

cc: Commanding Officer...

NOAA Marine and Aviation Operations
Marine Operations Center

Subject: NOAA Fleet Small Boat Policy

1. **PURPOSE**: To provide requirements, guidelines, and information for boat crews to improve the safety and effectiveness of small boat operations on NOAA ships.

2. **REFERENCES**: This policy was modeled after and closely follows the spirit and format of the U.S. Coast Guard's Non-Standard Boat Operator's Handbook and Boat Operations Training Manual (Volumes I and II). Additional guidance was provided by Canadian Coast Guard and other maritime agency regulations. As a result, this policy is in compliance with applicable CFRs. The following references are also applicable:

   a. NC Instruction 5100.1(series)
   b. ES 08. Personal Flotation Device Policy for the NOAA Fleet
   c. NOAA PFD Policy (draft 6/11/03)
   d. SC-1. NOAA Fleet Small Craft Program
   e. SC-4 Small Boat Operators and Operations
   f. SC-5 Fast Rescue/Utility Boats
   g. NAO 217-103. Management of NOAA Small Boats.
   h. OPS 02. Cruise Planning, Scheduling, & Execution
   i. Ship Standing Orders
   j. Coxswain Training Workbook

2. **AUTHORITY AND APPLICABILITY**: Irrespective of NOAA program small boat policy, this document shall apply to all boats carried aboard NOAA ships either as part of the ship's outfitting and equipment or brought aboard for use by a research program. This policy does not apply to boats *in extremis* where a departure from the policy may be required. Furthermore, the NOAA Ship's Commanding Officer shall remain the final authority afloat regarding all matters pertaining to the operation from the ship of all small boats as defined by this document.

3. **DISCUSSION**: Through improved training and risk management procedures, the effectiveness of small boats can be improved and the probability of future mishaps can be minimized. When operated within the appropriate conditions and in the manner in which it is designed, small boats are inherently safe and useful tools for accomplishing NOAA's mission.

4. **DEFINITIONS**: Refer to NAO 217-103, Management of NOAA Small Boats.

   A. Boat: As used in this policy, refers to all craft less than 300 gross registered tons propelled by any means and commonly used to carry people on a body of water, but does not include sea planes.

B. Motorboat Classifications: NOAA motorboat classifications are developed from USCG definitions for motorboats, and apply to all boats propelled by machinery as follows:

1. Class A: less than 16 feet length overall
2. Class I: from 16 feet to less than 26 feet overall
3. Class II: from 26 feet to less than 40 feet overall
4. Class III: from 40 feet to less than 65 feet overall
5. Small Research Ship (SRV): greater than 65 feet overall but less than 300 gross tons.

5. **RESPONSIBILITIES**:

A. The Director, Marine Operations Center shall be responsible for:

1) Ensuring that NOAA ships comply with this directive
2) The overall safety of the NOAA fleet
3) Maintaining this document and its Appendices.

B. NOAA Ship Commanding Officer shall be responsible for:

1) Ensuring that safety guidelines are adhered to under his/her command.
2) Maintaining up-to-date standing orders for the small boat use aboard his/her ship (As per appendix B)
3) Ensure policy is read by all personnel and is part of the Crewmember and Coxswain workbooks.
4) Ensuring this policy is adhered to by visiting program personnel

C. Small Boat Coxswain shall be responsible for:

1) Following and enforcing safety guidelines while underway on a small boat.
2) Completing the Small Boat Coxswain Personal Qualification Workbook
3) Completing the underway checklist, Appendix A, and reporting its status to the ship's bridge who will then enter it in the Ship's Log.
4) Training unqualified small boat crewmembers and coxswains.

D. Command's Designated Examiner shall be responsible for:
- see Standing Orders

6. **ATTACHMENTS:**

A. Appendix A: Minimum Small Boat Underway Checklist
B. Appendix B: Small Boat Standing Order Template
C. Appendix C: Small Boat Coxswain Personal Qualification Workbook
D. Appendix D: Small Boat Crewmember Personal Qualification Sheet
E. Appendix E: NOAA Fleet Employee Coxswain Certificate Template

CONTENTS

I. GENERAL

A. Safety: The purpose of this document is to improve the safety of small boats operating within the NOAA fleet and it applies to all boat operators, crew members and embarked scientific personnel and other passengers. Additional responsibility to provide a safe working environment and adequate safety training rests on the command. However, personal safety ultimately depends upon individuals and will not be compromised for any reason.

B. Drugs and Alcohol: Alcohol and drug use cause slower reaction time, lack of coordination, slurred speech, drowsiness, and an overconfident attitude. In short, it provides all the attributes that can lead to an unwanted incident. Hangovers also cause irritability, drowsiness, sea sickness, and a lack of concentration. As a result, crew members who knowingly get underway for a NOAA mission while under the influence are violating NOAA policy and put themselves and others at risk.

C. Operations: Procedures for the conduct of operations specific to NOAA ships remain outside of the scope of this document and shall be documented locally in the ship's standing orders. Examples of specific operations include: diving, hydrographic survey, marine mammal work, personnel transfer, etc.

II. CREW QUALIFICATIONS

A. General: Qualification, certification, and assignment as coxswain and crewmember on any NOAA small boat requires considerable time, effort, and practice. The individual must learn the characteristics of the boat and its uses, as well as the adverse conditions of the sea and environment in which the boat operates. It is essential that the complete qualification process be used to certify small boat coxswains and crew. Skills and knowledge must be demonstrated on each platform and they must be honed through experience and training at every opportunity. Crew and cox who have been qualified prior to Oct 1 03 may be so designated.

B. Standards: The guidelines listed below constitute the minimum acceptable requirements for NOAA small boat coxswain. Commands are strongly encouraged to provide additional training as available.

C. Administration: Upon satisfactory completion of the requirements for Coxswain and or Crewmember, certification shall be issued by the command. This certification shall be maintained aboard the ship as long as the crewmember or scientist remains aboard. Copy to MOA OPS for official training file.

D. Transfer: Under most circumstances, small boat certifications do not transfer to other ships. Upon reporting to a new ship, the seaman must complete a new Ship's Small Boat Coxswain Personal Qualification Workbook to the satisfaction of the new Commanding Officer and a new Coxswain Certification Letter, Appendix D, shall be issued by the command. Crew and scientists that have certification on the same type of small boats, on other NOAA ships, may be certified without retraining at the commands' discretion. These coxswains must produce qualification documentation, display small boat proficiency and familiarity with local procedures and equipment to the satisfaction of command's Designated Examiner. Any recertification will be issued in writing.

E. Boat Deployment Crew: Boat Crew members must be qualified to deploy boats. Boat Crew members are considered qualified to deploy boats when he/she has been found capable to participate in boat deployments by the Command's Designated Examiner.

F. Crewmember: Considered to be qualified to act as small boat crewmember when found capable by Command's Designated Examiner. Additionally, the member shall:

1. Complete Small Boat Crewmember qualification workbook worksheet (Appendix D).
2. Complete other qualification requirements as determined by the command.

G. Coxswain: Considered to be qualified to operate a boat when all the following conditions are met:

1. The crew member possesses a valid Merchant Mariner Document endorsed for service as Able Bodied Seaman or is a Commissioned Officer;
2. or at the discretion of the Command, individuals will be crew members, preferably with sea going or small boat experience, and have full confidence by both the Command and Chief Bosun and have successfully completed the shipboard training course.
3. The conditions for Boat Deployment Crew and Crewmember above have been met.
4. The person meets or exceeds the appropriate minimum operator training and certification requirements as per NAO 217-103.
5. The crew member successfully completed or will complete within one field season, an STCW Fast Rescue Boat or STCW Proficiency in Rescue Craft course or other NOAA certified small boat training course. Any incomplete training required for certification will result in issuance of a temporary certification letter. The anticipated training completion date will also be noted. Certification will be revoked if training is not completed.
6. A minimum of 10 hours of supervised hands on training. Commands may require additional training including that for survey launches, special operations, etc.

7. Has completed the ship's Coxswain Personal Qualification Workbook and the person has been found qualified to operate the boat by the Command's Designated Examiner.

H. Unqualified Crewmember or Coxswain Appointments:

In certain rare and limited situations, the Commanding Officer may assign crewmember or coxswain duties to persons, either permanent ship's crew or embarked scientific party, not meeting the coxswain qualifications listed above in order to complete a specific mission. This assignment shall only be made after an in depth examination of the risks versus benefits of the specific case.

This temporary designation shall be made in writing as per Appendix G of this document and shall be copied to the Director, Marine Operations Center.

1. Minimum Factors Considered:

   a. Length of time that the boat will operate away from the parent ship.
   b. Distance from the ship that the boat will be operated.
   c. Waters where the boat will be operated.
   d. Nature and number of navigational hazards in the operations area.
   e. Environmental conditions, both present and forecasted, including sea state, visibility, currents, and temperature.
   f. Character, ability, and previous experience of the person who will be acting as a coxswain.
   g. Engineering design limitations of the boat.
   h. Experience of other personnel on board.

2. This temporary designation shall expire upon the completion of the assigned task or mission. Permanent certification must be earned in accordance with the requirements stated in this section above.

III. CREW DUTIES

A. General:

1. Safety is the responsibility of not only the coxswain, but of all passengers and crewmembers assigned to the small boat. At any time, any crewmember can and should voice safety concerns that must be addressed before continuing with operations.

2. Furthermore, each crewmember should be familiar with the duties of the other crewmembers in addition to their own duties. It is important for a crewmember to know and commit to memory all important characteristics of the boat and its equipment as well as all emergency procedures. Accordingly, the crew should get the boat underway to practice operational and emergency procedures whenever the opportunity is available.

3. As further described below, the qualified Coxswain, in the absence of an Officer in Charge, shall direct all crewmembers and passengers in the safe conduct of small boat operations. Failure to do so could result in disciplinary action.

B. Minimum Personnel**:**

1. There shall be a minimum of two qualified personnel aboard the small boat for every operation, namely one qualified coxswain and one qualified crewmember as defined by Section II above.

2. A qualified small boat crewmember need not be part of the ship's complement assuming that the qualifications above have been met.

3. Beyond the minimum crew stated above, Commanding Officers may at their discretion, add additional crew based on operational support, space aboard the small boat, mission of small boat, designed load limitations, and other criteria as defined by paragraph II.H.1 above.

4. Coxswains may be left alone in the boat for limited periods if crewmembers are involved with operations such as diving or scientific operations. Any such condition must be specifically approved in advance by the command.

C. Coxswain: The Commanding Officer places great trust in a coxswain's ability to accomplish the assigned missions in a safe and professional manner even under adverse conditions. Due to the extreme dynamic nature of these ships, the coxswain must be constantly attuned to the safety and comfort of the crew and shall adjust operations accordingly. NOAA boats underway must have a coxswain on board who is certified by the command to operate that particular type of boat.

1. Authority: In the absence of an Officer in Charge, the coxswain is the direct representative of the Commanding Officer. As such, he/she has the authority and responsibilities that are independent of rank or seniority in relation to other personnel embarked. The authority and responsibility of the coxswain exists, however, only when the boat is engaged on a specific sortie or mission and shall be limited to issues regarding the safety of the small boat or its crew and passengers.

2. Responsibility: The coxswain shall be responsible, in order of precedence, for the safety and conduct of passengers and crew, the safe operation and navigation of the boat assigned, and the completion of the sortie or mission(s) assigned or undertaken pursuant to NOAA policy and regulations (this may overlap with OIC duties). Within the limits of his or her capabilities and legal authority, an underway coxswain will at all times respond to observed hazards to life or property, and will not violate law or regulation. In the absence of an OIC, the coxswain may also be assigned the responsibilities of the OIC.

3. Relief: The only person embarked in the boat who may relieve the coxswain of the responsibility as stated above is:

   a. The Coxswain's Commanding Officer, Executive Officer, or Chief Boatswain's Mate or other designee from the command.

   b. A senior officer at the scene of a distress emergency or other abnormal situation who exercises authority under the provisions of NOAA regulations.

   c. Chain of Command: In the event that the qualified Coxswain is incapacitated or otherwise unable to conduct his or her duties, the position of Coxswain shall pass the next most qualified person on board in a clear manner and all on board must be informed.

4. Duties:

   a. Demonstrate leadership that effectively coordinates, directs, and guides the performance of the boat crew during watches and tasks.
   b. Know's the boat's operational limits and keeps the boat out of danger at all times.
   c. Will be familiar with the local operating area with minimal reference to charts and publications.
   d. Demonstrate good boat handling skills to safely and prudently control the movement of the boat while underway.
   e. Demonstrate knowledge and ability required to use all equipment on board necessary to respond to emergencies.

D. Crew Members:

1. Duties: When qualified as per section II above, and under direct supervision of the coxswain, crewmembers may be responsible for the following duties:

   a. Helm
   b. Lookout
   c. Towing watches
   d. Anchor watches
   e. Secure towing and mooring lines
   f. Assist in scientific operations
   g. Assist in emergency operations
   h. Other duties as required by the coxswain

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2. Most small boats do not require an additional engineer. Although the coxswain is in charge and responsible, every crewmember plays an important role as a part of the underway team. They must be actively involved in each activity including the vocalization of safety concerns or other hazards. Each crewmember must have a thorough knowledge of the boat's outfit equipment and stowage as well as a basic

understanding of the propulsion and control systems in order to support the coxswain. Basic engineering casualty control and troubleshooting, as applied to the various small boat platforms in the NOAA fleet, are skills and knowledge that must be integrated into the Ship's Training Program starting at the crew level.

E. Passengers:

1. The term "passenger" as defined by this document shall include, though be not limited to, all embarked scientists not acting in the capacity as a qualified crewmember as defined by section II of this document.
2. All hands aboard a small boat shall be familiar with small boat communication methods and emergency procedures.

F. Officer in Charge: When assigned, the Officer in Charge (OIC) shall retain situational operational authority for all issues involving the safety of the Small Boat or its crew and passengers. Officer in Charge qualification standards shall rest with the Command.

G. Command's Designated Examiner
Duties and authority are defined in ship's Standing Orders.

IV. BOAT MAINTENANCE, OUTFIT, INSPECTION, AND EQUIPMENT STOWAGE

A. General: Commanding Officers are responsible for regulating outfit and stowage polices in accordance with NOAA regulations. Specific maintenance requirements and responsibilities beyond those required by NC Instruction 5100.1(series) shall be documented by the ship's standing orders. Additionally, outfit requirements for each small boat vary slightly based on deck layout, stowage capacity, and mission focus and should be documented in the ship's standing orders.

B. Stowage**:** Proper stowage can become critical (even life threatening) if a small boat is involved in a mishap such as capsizing. General guidelines for stowage include:

1. Secure for sea reducing chance of lost gear or entanglement.
2. Ready access to equipment that relates to operations.
3. Protection from the elements thus prolonging equipment service life and reliability.
4. Unencumbered access to safety and emergency gear.

C. Outfit: Commanding Officers shall establish the minimum required equipment list for the small boats within their command. A minimum recommended outfit for small boats is provided in NAO 217-103 Appendix A, as well as NC 5100.1(series) Appendices D and H. These may be considered necessary for all multi-mission work with this type of platform. Commands should take a prudent but conservative approach in

adding extra equipment to these boats that are typically short on stowage space.

D. Maintenance: Periodic small boat maintenance requirements shall be determined by the Chief Engineer and manufacturer documentation. Maintenance responsibilities shall be distributed as determined by the command.

E. Inspection: Boats shall be inspected prior to every use in accordance with Appendix A of this document. Furthermore, boats shall inspected annually in accordance with NC 5100.1(series). Boats not meeting the inspection requirement shall be inspected prior to operation from a NOAA ship.

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1. Inspections shall include examination of material condition and engineering systems (e.g. electrical, exhaust, cooling, fuel) in addition to the survey of minimum outfitting and safety gear.

2. Minimum criteria for engineering systems is found in the American Boat and Yacht Council's "Standards and Technical Information Reports" (www.abycinc.org).

V. COMMUNICATIONS

A. General: Mis-communication can prove deadly. Effective crew communications are a vital part of safe small craft operation. Since ship crews confront a variety of risks, a systematic approach to risk management is also essential.

All small boats shall be equipped with no fewer than two VHF/FM radios. Refer to NAO 217-103 for additional requirements for boat-to-shore and boat-to-ship communications. Some boats may be equipped with an inter-crew communications system. Boat crews should be familiar with the difficulties imposed by wind and engine noises. Proper communication language and verbiage must be used so not to confuse any orders, instructions, or other communications.

B. Reports: Frequent operations and position reports shall be made by the small boat to the parent ship using pre-designated operating frequencies at intervals of no less than once per hour. The periodicity of the operational reports may be increased at the discretion of the Commanding Officer.

C. Loss of Communications: Commands shall develop a plan to counter a loss of communication by either the Small Boat or parent ship. This plan may be documented in the ship's Standing Orders, Appendix B.

D. Internal Communications: While underway, every maneuver should be verbalized to ensure that each member of the crew is aware of what the ship is about to do. Discuss the terms that are going to be used such as 1. Coming Up (throttling up) 2. Coming Down (throttling down) 3. Hard to port/starboard, etc.

Whether passing information to the crew and passengers or the parent unit, due consideration must be given that the message is received and understood. It is sometimes necessary to slow down or stop in order to overcome the shortfalls of the small boat communication system.

VI. HAZARDOUS WEATHER OPERATIONS

A. Small Craft Warning: Operating while a small craft warning (defined as winds in excess of 21 knots or seas seven feet or greater) has been issued, with or without an experienced coxswain, can seriously jeopardize the safety of the boat, its crew, and the mission. The Commanding Officer must consider many factors when allowing operations during the small craft warning. These factors include case severity, experience of

the crew, water and air temperature, and weather forecast outlook. Even when forecast weather or on scene weather conditions do not meet the definition of a small craft warning, small boat coxswains must remain alert. Refer to section VIII of this document for small craft operating parameters and limits.

B. Surf Operations:

1. Small boats shall not be operated in environmental conditions which exceed the maximums as defined by the boat's manufacturer. Furthermore, coxswains shall maintain a safe distance from the surf zone (defined as the part of the coast zone between the shoreline and the breaker zone (the most seaward area of breaking waves)) as caused by a beach, sand bar, break water, shoal, reef, sea mount, tide rip or other oceanographic or physical feature where waves are breaking or have created surf in excess of one foot without having successfully attended the following training:

   a. USCG heavy Weather Coxswain course att the National Motor Life Boat School, Ilwaco, WA or...
   b. A surf boat coxswain course approved by the NOAA small boat program or...
   c. NOAA Surf Coxswain Course of the NOAA Small Boat Program, Honolulu, HI (currently under development)

2. Furthermore, no coxswain regardless of training or experience shall enter that surf zone without expressed authority to do so from his/her Commanding Officer. This acknowledgment shall be entered into the ship's log.

VII. SAFETY EQUIPMENT

A. Personal Flotation Devices: Refer to NOAA PFD Policy and ES 08--Personal Flotation Device Policy for the NOAA Fleet. During all small boat operations, PFDs shall be worn as prescribed by all persons aboard. PFDs shall provide a minimum of 22 pounds of positive buoyancy and must be USCG approved Type I, Type II, Type III, or Type V.

B. Head Protection: During small boat deployment and recovery from a parent ship using a crane or other over the side recovery device, hard hats shall be worn. Furthermore, units should consider a policy regarding the use of helmets for use during high speed or heavy weather operations. Even if not required by other directives or policies, Commanding Officers should still consider requiring helmets when planning missions.

C. Eye Protection: A risk-based decision should be undertaken by Commanding Officers in order to determine if eye protection should be worn.

Eye protection with appropriate lenses protect eyes from glare, wind, and spray. Rain or other particles in the air can cause eye injury during high speed operations.

D. Cold Weather Protection: Protection from hypothermia is necessary to ensure the safety of small boat crews. Commands and crews shall ensure that adequate hypothermia protective equipment is provided to all boat crews and passengers.

E. Personal Locator Beacons: When available, PLBs will be used aboard all small boats in accordance with manufacturer's instructions. PLBs must be registered with NOAA SARSAT in Suitland, Maryland in order to be effective.

F. Other Equipment: As per NAO 217-103 Appendix A and NC Instruction 5100.1(series) Appendices D and H, additional deck, rescue, and survival equipment is required.

VIII. OPERATING PARAMETERS

A. General: Many of the ships in NOAA's small boat fleet are capable of high speeds. This is an asset only when used in a mature and professional manner and in consideration of crew and passenger comfort. A high number of small boat mishaps can be attributed to excessive speed. The experienced coxswain rarely operates at the maximum speed available and he or she knows that reserving some throttle will enable evasive maneuvering if necessary.

When operating a high-speed class A or B small boat, the operator must be able to read and to identify waves in order to prevent capsizing or launching. Too much speed at the wrong time could cause crew ejection, injury, or damage to the boat.

B. Duration of Operations: To minimize fatigue induced accidents and to ensure compliance with STCW work hour requirements, boat operations shall not be conducted for more than:

1. Class II, Class III: Twelve (12) hours per day. Boat operations are said to have begun when boats are being readied prior to launch and are said to have been concluded when the boat has been secured.
2. Class A, Class I: Eight (8) hours per day by the same coxswain. If multiple coxswains are used, total duration remains up to the Commanding Officer.

C. Maximum Operating Limits: Maximum operating limits shall be established by

the commanding officer with consideration of the small boat's inherent design limitations. At a minimum, small boat operations shall not be conducted when environmental conditions meet or exceed the following U.S. Coast Guard operating limits as defined (Reference USCG District 13 Standard Operating Procedures):

1. Class II, Class III: Beaufort Condition 6
2. Class A, Class I: Beaufort Condition 5
3. Visibility: Limited to 2 nautical miles or less
4. If a water spout is observed
5. If freezing rain is forecast or observed
6. Lighting or severe storms at or near the small boat or working grounds.

IX. SCIENCE PROGRAM SPONSORED SMALL BOAT OPERATIONS

A. General: As per NAO 217-103, rotating scientific personnel and the ship's permanent crew will be held to the same training and qualification standards. Given this, Commanding Officers may at their discretion permit embarked scientific personnel to operate either NOAA ship or Scientific Program Office provided small boats. Conversely, failing to provide proper qualification documentation or for any reason the Commanding Officer deems a situation unsafe, science team led small boat operations may be terminated.

B. Qualification:

1. Crewmember: Qualification requirements of crewmember for any small boat launched or operated from a NOAA Ship shall be the same as those in section II above for crewmember. This qualification shall be documented by a Command's Designated Examiner using Appendix E of this document.

2. Coxswain: Qualification requirements of coxswain for any small boat launched or operated from a NOAA Ship shall be the same as those in section II above for coxswain. This qualification shall be documented by a Command's Designated Examiner using Appendix D of this document. Coxswains that have met the requirements for equivalent training and designation in another program, may also be certified by the command on a case by case basis. An example would be a scientist who holds a coxswain certification from his/her lab and meets the minimum NAO 217-103 requirement.

C. Administration:

1. As per OPS 02, Cruise Planning, Scheduling & Execution crewmember and coxswain qualifications shall be documented in the cruise instructions.
2. Qualification certifications shall be presented to the Commanding Officer before embarkation and shall be maintained onboard the ship for the duration of the cruise.

D. Planning**:** As per OPS 02, Cruise Planning, Scheduling & Execution, Chief Scientists are required to include in all planning and final cruise instructions a statement of intent with regards to Small Boat use. This statement will include information with regards to:

1. Mission and type of operations.
2. Duration of operations.
3. Special equipment needed or modifications to the small boat.
4. Whether or not the line office wishes to augment the coxswain with a helmsman as per section IX, paragraph D of this document.
5. Line office providing a small boat for use aboard a fleet ship.
6. Fuel provisions and requirements.
7. Certification that the boat has met the inspection requirements of NAO-217-103 Appendix A.

E. Non-NMAO Boat Use: The use of non-NMAO provided small boats is authorized aboard NOAA fleet ships. However the following will be true:

1. The ship's Commanding Officer will retain operational authority over the small boat. In this capacity, he/she is shall decide, in consultation with the embarked chief scientist, when to commence and when to conclude operations.
2. In the event of an emergency aboard the non-NMAO provided small boat, the ship's Commanding Officer shall retain authority and may direct the coxswain in an appropriate manner.
3. The line office providing the small boat will remain responsible for fueling costs and costs incurred from repairs rendered.
4. Small boats shall meet the inspection requirements of NAO-217-103 Appendix A.

F. Launch/Recovery: Refer to SC 4, Small Boat Operators and Operations for complete small boat launch and recovery procedures.

G. Helmsman: During some small boat operations, a helmsman in addition to the coxswain may be used to steer the boat. Namely, a helmsman may be appropriate when special knowledge or skills are required, and not possessed by the designated coxswain, to ensure mission success. The command may, however, require a qualified coxswain from the ship's crew to deploy, recover, and or conduct operations as required by the command, or to accompany the non-ship crew in the small boat.

1. Example: When approaching marine mammals for the purpose tagging or biopsy sampling, a scientist's experience may be better suited for maneuvering in such a way as to ensure sampling success.

2. Terminating Operations: During these operations, the coxswain maintains responsibility for the boat's safety and remains in charge in the event of an emergency. Furthermore, the coxswain (or Commanding Officer) may, at his/her discretion, terminate operations and return the boat to the parent ship if safety is compromised.

X. EMERGENCY PROCEDURES

A. General: These procedures are presented as a guideline to follow in the event of a mishap aboard a Small Boat with the realization that in the event of a true emergency, deviation may be necessary as the case permits.

B. Capsizing: In the event of capsizing outside of the surf zone, as defined in section VI, paragraph B of this document, all effort should be made to stay with the inverted craft and to use it for floatation.

C. Abandoning: Great effort should be made to avoid abandoning a small boat. Vigorous and proficient firefighting or damage control is normally a preferred alternative to abandonment. However, the prudent coxswain should not hesitate to give the order to abandon the boat if he/she deems that survival is more likely in the water than on the boat. As time and the situation permit:

1. Initiate a distress call
2. Ensure all personnel have PFDs
3. Throw all floating objects overboard
4. Take the portable, waterproof radio
5. Take the PLB and any extra signaling gear

D. Rescue: At the first indication of a mishap, the parent ship should deploy the rescue boat and mobilize embarked rescue personnel while monitoring all working channels, as well as channels 13 and 16 for communications from the troubled craft. Additionally, the parent ship should post lookouts and, as conditions allow, maneuver rapidly towards the small boat.

MINIMUM PRE-UNDERWAY CHECKLIST

G 1. Brief all crew members and passengers on the mission, preferably before getting underway, or as soon as possible afterwards. The briefing should be complete. State:
- G a. Purpose of mission
- G b. Special circumstances
- G c. Working radio frequency for the mission
- G d. Plan of action upon arrival at destination
- G e. Weather and sea conditions
- G f. Emergency equipment and procedures

G 2. Ensure water tight integrity (as appropriate)

G 3. Secure all loose gear

G 4. Ensure that all gear necessary to perform the mission is on board. This includes supplemental equipment not normally on the boat but needed for the specific mission.

G 5. Ensure crew members wear Personal Protective Equipment required for the environment (i.e. PFDs, helmets, anti-exposure suits, etc).

G 6. Ensure that the boat engineer has checked the boats mechanical and electrical systems and has reported these conditions to the coxswain. This report should include the status of:
- G a. Fuel levels
- G b. Oil levels for engines and marine reduction gears
- G c. Cooling water level
- G d. Hydraulic steering oil
- G e. Engine/marine reduction gear PSI/temperature gauges.
- G f. Electrical systems energized
- G g. Navigational lights operating
- G h. Open sea suction (as required)
- G i. Shore tie disconnected (as required)
- G j. Overboard discharge (as required)

G 7. Test the boat's electronic equipment and report the status to the coxswain:
- G a. Radios
- G b. Depth sounder
- G c. RADAR (as required)
- G d. All navigational systems
- G e. Compass light

G 8. Test the engine controls, both forward and reverse. Note the reaction time in each direction.

G 9. Notify the command that the checklist has been completed and report the names of all passengers and crewmembers.

G 10. Cast off all lines, stow the lines, and bring aboard any fenders.

Small Boat Standing Orders Template

NOAA Ship XXX, Standing Order X

Small Boat Operations

This template and the order of sections is for reference only and should not be thought of as a limit to what Commanding Officers may include in their Small Boat Operations Standing Orders. This documents highlights only those items specifically mentioned in the Small Boat Policy as required in ships' Standing Orders

Command Designated Responsibilities (in addition to policy):

1) Cox
2) OIC
3) Designated Examiner
4) CB
5) CME
6) Other

1. Coxswain Training Requirements: Commands may determine that small boat Crewmember and Coxswain hands on requirements should exceed those in found in the policy. This section should include min training requirements and on the job supervised training.

2. Unqualified Coxswain Appointments: Commanding Officer should enunciate the ability, in rare and limited cases, to issue unqualified coxswain appointments.

3. Minimum Crew: If Commands determine that a minimum crew in excess of that provided by the Policy is necessary, it should be included within the standing orders.

4. Certification Transfer: Small Boat Coxswain and Crewmember qualifications do not seamlessly transfer to a new vessel. Commanding Officers should codify the need (or in rare cases, lack thereof) for re-issuance of Certification Letter.

5. Maintenance: Commanding Officers may wish to use this format to describe the relationship of the Chief Bosun and the Chief Engineer with regards to small boat maintenance. Guidance to commands: Responsibility for maintenance should be clarified in this section.

6. Outfit and Storage: Outfit requirements for each small boat varies slightly based on deck layout, stowage capacity, and mission focus.

7. Small Boat Equipment list: In excess of required lists mentioned above.

8. Underway Checklist: Commands are now required to complete and log the completion of Small Boat underway checklists. This process should be locally codified as should any small boat checklist that deviates (i.e. there are more requirements) from the checklist included in the Policy.

9. Boat Deployment: PFDs and hard hats shall or shall not be worn by crewmembers deploying or recovering small boats as determined by deck layout and the Commanding Officer.

10. Operations: Procedures for the conduct of operations specific to NOAA ships shall be documented locally in the ship's standing orders. Examples of specific operations include: diving, hydrographic survey, marine mammal work, personnel transfer, etc.

11. Reports: Commands may determine that there is a need for greater reporting periodicity for small boat communications than provided in the Policy.

12. Operational Limits Stated in the Policy are the maximum conditions in which operations are allowable. Commanding Officers should document their local policy for operating in hazardous conditions (this may be more stringent).

13. Surf Zone Operations: The Policy requires that surf zone operations be logged and only those qualified may perform them. This should be included in Standing Orders.

14. Scientific Operations: The ship's Commanding Officer will retain operational authority over all science team provided small boats. In this capacity, he/she shall decide, in consultation with the embarked chief scientist, when to commence and when to conclude operations. A variation of this should be documented in the standing orders.

15. Crew Fatigue: Commanding Officers may determine that more stringent crew fatigue requirements are required for their small boats. Furthermore, when multiple coxswains are used within a 24 period, Commands should document total allowable small boat operational time allowable.

16. Loss of Communication Plan: A plan is required to address communications loss between parent ship and the Small Boat.

17. Terminating Operations: During operations, the coxswain maintains responsibility for the boat's safety and remains in charge in the event of an emergency. Furthermore, the coxswain (or Commanding Officer) may, at his/her discretion, terminate operations and return the boat to the parent ship if safety is compromised.

COXSWAIN Workbook coverpage here

NOTE TO COMMANDS: This workbook is provided as a template only which is at your discretion to modify and tailor to your individual needs. The format of this template should be followed to ensure uniformity throughout the fleet, however the sectional content may be modified to suit your needs. You may also deem it necessary to add sections relevant to your operations.

1 Vessel Characteristics

- Knowing the physical characteristics a vessel is the first step to understanding what can be done in any given situation.

1.1 Small boat Characteristics:

a) What type of hull does the small boat have: Displacement or Planing?

b) What material is the small boat hull constructed of?

1) What are the advantages and disadvantages to this material?

c) The hull dimensions of the small boats:

_____ _____ _____

	LOA	Beam	Draft	Weight	Mast Height
XX1					
XX2					

d) The propulsion systems of the Small boats:

	Engine Horse Power	Fuel Type	Fuel Capacity	Fuel Endurance
XX1				
XX2				

e) Expected Performance for the Small boats:

	Cruise RPM	Max Speed RPM	Cruising Speed
XX1			

XX2			

f) Safe Operating Capacity

	Personnel Capacity	**# of Life Preservers**
XX1		
XX2		

1. What is the limiting factor that will determine the small boat's capacity?

1.2 General arrangements and ship structure.

- General knowledge of the principal structural members of a ship and the proper names for the various parts

- Demonstrate knowledge of structural details including deck layout and the names. This may be accomplished by drawing sketches or demonstrating knowledge with a qualified ship operator.

a) What does RHIB stand for?

b) What is significant about the keel of a small boat?

c) What are chine rails? What are their purposes?

d) What flotation is built into a small boat hull?

1.3 Power Plant

- Knowledge of the operation of power plants and auxiliaries.
- General knowledge of marine engineering terms
- Demonstrate a working knowledge of the operation of all ship equipment and machinery.

a) What basic information about marine engines, including terminology, is important for ship operators to know and understand?

1.4 Start up Procedures:

Describe, in detail, the start up procedures for XX1and XX2. Include fluids to check, motor indicators, etc.

1.5 Shut Down Procedures:

Describe in detail the procedures for shutting down XX1and XX2.

1.6 Troubleshooting

What are some things to look for if the following occurs in the field?

a) Engine will not turn over.

b) Starter turns engine over, but engine will not start.

c) Overheating

1. Ship Characteristics - Check-off Sheet NAME:

Knowledge of the following has been satisfactorily demonstrated:

		Signature	Date
1.	Ship Characteristics	_____	
2.	Fuel capacity and consumption	_____	
3.	Operational limits	_____	
4.	Power	_____	
5.	Auxiliary equipment	_____	
6.	Steering Systems	_____	
7.	Start up procedures	_____	
8.	Shut down procedures	_____	
9.	Troubleshooting	_____	

2 ADMINISTRATION

2.1 Chain of Command

To assure the orderly and effective operation of the ships, it is important that each Coxswain understand administrative rules and policies.

a) Describe the chain of command aboard Ship NAME. What is the responsibility of the Coxswain to the command? From where does this responsibility derive?

b) Describe the operational chain of command aboard small boats deployed from the ship.

c) What do you do if the small boat science party directs you to do one thing and the Ship NAME OOD directs you to do something else?

2.2. NOTE: Supervisory and Management Duties

- When assigned as Coxswain , additional responsibilities are assumed including mission accomplishment and supervisory / management rolls. These duties include oversight and management of other personnel assigned to the working group or liberty party. For effective management and oversight an understanding of NOAA and shipboard policy is important.

2. Administration - Check-Off List Name:

Knowledge of the ship's administrative procedures has been satisfactorily demonstrated:

		Signature	Date
1.	Chain of command		
2.	Department responsibilities		

3 Coxswain Underway Procedures

3.1 Communications.

- Demonstrate a working knowledge of all communications systems installed on the ships, internal and external.

a) What equipment and frequency are used for small boat to Ship NAME communications?

b) List the station identifiers used aboard Ship NAME.

c) Describe the basic format of verbal traffic between ships.

d) What equipment is for ship-to-boat (non-NOAA) communications?

-Which channels?

e) List any other frequencies Ship NAME monitors. (handy to know if you have to contact the ship and you have radio problems)

f) Describe the emergency communications systems on board Small boats, including EPIRBS, RADAR reflectors etc. Describe when they would be used.

3.2 Lights.

- Demonstrate working knowledge of all lighting systems.

a) Which lights should be displayed when the ship is underway? When should they be displayed?

b) Which lights are displayed when the ship is at anchor. When are they displayed?

3.3 Emergency procedures

There is always potential for emergencies when conducting small boat operations. As Coxswain you are responsible for emergency procedures followed aboard the Small boat.

- Precautions for the protection and safety of passengers in emergency situations
- Demonstrate a thorough knowledge of local conditions that could affect the safety of your ship

- Initial assessment of damage and damage control

3.3.1 Rescue Equipment

a) What equipment is on board for rescuing a person (conscious and unconscious) in the water?

3.3.2 Emergency signaling devices

Demonstrate knowledge of emergency signaling devices.

a) What emergency signaling devices are stored aboard each small boat?

b) Describe the location of emergency signaling devices aboard each boat.

c) When and why would you expect to use the different types?

3.3.3 Fire fighting

Fire aboard any ship is a serious matter. Understanding how to act based on the type of fire and the equipment at hand is an important part of a Coxswain 's training.

- Demonstrate knowledge of the fire prevention on the Small boats.
- Demonstrate knowledge of the fire fighting equipment aboard the Small boats.
- Demonstrate knowledge of action to be taken in the event of fire, including fires involving oil systems

a) What equipment is available for fire fighting on the various small ships?

b) How would you combat each type of fire on a Small Boat?

c) What steps would you take in case of fire?

3.3.4 Flooding

- Initial assessment of damage and damage control

a) What would you do if the ship began taking on water?

b) Where is the hand bilge pump located? How does it work?

c) Demonstrate the ability to repair a punctured air compartment in the field.

3.3.5 Collision & Grounding

- Initial action to be taken following a collision or grounding; initial damage assessment and control.

a) What should you do if the small boat is involved in a collision?

b) What should you do if the small boat is grounded?

3.3.6 Abandon Ship

- Knowledge of survival at sea techniques

a) Would you ever abandon a small boat in the event of flooding or capsizing?

b) What is “parbuckling”? When would you perform this action?

3.3.7 Man Overboard

- Demonstrate proficiency for rescuing persons from the sea.

a) As Coxswain , what should be your immediate actions if you saw a man fall overboard from a small boat?

c) What are the duties of the Coxswain during a man-overboard rescue?*

*NOTE - There are several acceptable "man-overboard" procedures

d) Describe the rescue/recovery procedure for a man overboard by a small boat (describe direct and indirect approach methods)

Direct Approach:

Indirect Approach

1) How would you bring an unconscious victim aboard?

3.3.8 Responding to external emergencies

- Appreciation of the procedures to be followed for rescuing persons from the sea, assisting a ship in distress, responding to emergencies which arise in port.
- Arrangements for towing and for being taken in tow.

a) What should you do if another ship requests emergency help?

3. Underway Procedures - Check-Off List Name:

Knowledge of the following has been satisfactorily demonstrated:

	Signature	Date
Communications		
Radio, ship to small boat		
Radio, ship to ship		
Radio, portable		
Radio, ship to shore		
Lights		
Emergency procedures		
Emergency Devices		
Fire Fighting		
Collision and Grounding		
Abandon ship		
Man overboard		
External Emergencies		
All equipment not previously listed		

4 NAVIGATION

The art of navigation has been addressed by thousands of books, and a complete course in this workbook would not be possible. The ship has extensive material that is available for study including structured learning programs. This basic list is the minimum STCW proficiency standard regarding navigation.

- Ability to operate safely and determine the ship's position by use of all navigational aids and equipment commonly fitted on board the ship concerned.

4.1 Terrestrial and coastal navigation

- Show proficiency in the ability to determine the ship's position by use of:
    1. Landmarks
    2. Aids to navigation, including lighthouses, beacons and buoys
    3. Dead reckoning, taking into account winds, tides, currents and estimated speed.

a) Are electronic devices required to navigate a ship?

b) What navigational equipment is available on the small boats?

c) What are Aids to Navigation (ATONS)?

d) How can you determine drift while in a buoyed channel?

e) What are the options if caught in a reduced visibility situation with no electronic navigational aids?

f) In general, what are your ship's guidelines for the distance a small boat can be from the ship?

g) What is a traffic separation scheme? When would you use one?

Demonstrate the ability to navigate using "seaman's eye", basic navigational equipment and chart.

4.2 Electronic systems of position fixing and navigation

- Ability to determine the ship's position by the use of electronic navigational aids.

a) What are some examples of Electronic aids and how do they assist the navigator fix the ship's position?

4.2.1 Global Positioning System

The Global Positioning System has become paramount to basic navigation. A basic understanding of the system, its operation and its limitations are needed to fully understand and apply GPS data.

a) What is GPS?

b) Can GPS be relied upon under all conditions to provide error free position information?

4.3 Echo-sounders (Fathometer)

- Ability to operate the equipment and apply the information correctly.

a) Why do the small boats have echo sounders (non-mission related)?

b) How can an echo sounder be used to help determine position?

c) When are the echo sounders required to be on?

4.4 Compass - magnetic

- Knowledge of the errors and corrections of magnetic compasses.
- Ability to determine errors of the compass using terrestrial means, and to allow for such errors.

a) How do you determine compass error using terrestrial means?

b) How do you get a true course from magnetic course?

c) When departing the ship for the working grounds, is there any information that can be obtained quickly from a compass to assist the small boat return to the ship in limited visibility?

d) List some basic do's and don'ts when using a magnetic compass.

e) COMPASS POINTS: How many degrees are in one compass point?

-If you are heading due east, and you are directed to come 3 points to starboard, what direction in degrees will you be heading?

4. Navigation - Check-Off List Name:

Knowledge of the following has been satisfactorily demonstrated:

	Signature	Date
1. Charts: Projections, Scales, Types		
2. Terrestrial Navigation		
3. Electronic Systems GPS		
4. Echo Sounder		
5. Compass - Magnetic		
6. All equipment used for navigation and survey operations not Previously listed		

5 SEAMANSHIP

Webster defines seamanship as "The skill of a seaman". It is an art, not an exact science, and skill in seamanship, as in any art, can be obtained only by practice and experience. For this reason this section has been kept short.

5.1 Ship Stability.

Maintenance of a ship's stability is critical in all aspects of small ship operation. The basic theory is the same regardless of ship size.

· Understanding of fundamental actions to be taken in the event of partial loss of intact buoyancy.

a) Why does a ship float?

b) Describe the stability of the small boats.

c) What happens to the stability as more passengers are added?

d) Are more or less passengers better in rough seas? Why?

5.2 Ship handling:

- Knowledge of factors affecting safe maneuvering and handling
- Proper procedures for anchoring and mooring
- Demonstrate knowledge of nomenclature and location of the ship's lines.

a) Describe briefly some of the ship handling characteristics of the small boats.

b) Discuss the procedure for taking a small boat away from the ship.

c) Discuss the procedure for bringing XX1or XX2 alongside (include line handling).

1) TRUE or FALSE: When coming alongside the your ship when she is underway at 5 kts, you should match speed just off her beam then increase speed slightly and come along side at a shallow angle.

d) Describe possible actions you could take if the motor stopped when the small boat was in a narrow channel.

5.3 Docking and Anchoring

- Proper procedures for anchoring and mooring
- Demonstrate a working knowledge of all ground tackle aboard your small boat.

a) How much scope should normally be used when anchoring?

b) What ground tackle is supplied aboard the small boats?

c) What is the total length of anchor line on the XX1and XX2?

5.4 Towing:

a) Can you use XX1and XX2 for towing operations?

b) Describe how to make a ship fast for side towing using XX1or XX2. Can you use one piece of line for side towing?

c) Stern towing: What should you watch for when towing astern.

5.5 Marlinspike Seamanship and purchases

Demonstrate a knowledge and understanding of knots and rigging.
[NOTE: Card Carrying ABs can skip this section.]

a) Define the following:
   - Knot
   - Bend
   - Splice
   - Bight
   - Turn
   - Round turn

5.5.1 List of Knots (Demonstrate): When would you use these in the small boats?

a) Bowline
b) Square Knot
c) Clove Hitch
d) Half hitch
e) Round Turn and 2 half hitches

5. Seamanship - Check-Off List Name:

Knowledge of the following has been satisfactorily demonstrated:

	Signature	Date
1. Ship Stability		
2. Ship handling		
3. Anchoring & Docking procedures		
4. Ship handling theory		
5. Towing		
6. Marlinspike Seamanship		
7.		
8.		

6 RULES OF THE ROAD

A thorough knowledge of the Rules of the Road is mandatory. Be prepared to demonstrate to the Commanding Officer or his designated training officer such knowledge. This requirement may be verbal or written examination at the discretion of the Command.

· A thorough knowledge of the content, application and intent of the International Regulations for Preventing Collisions at Sea

a) Is the small boat required to follow the rules of the road? If so why? If not, why not?

b) EXAMPLE: RULE 9: Scientific operations require that you maneuver within a narrow channel or fairway. Describe your obligations with regards to traffic that can only navigate within the channel.

c) EXAMPLE: RULE 10: Scientific operations near San Francisco require that you maneuver within a traffic separation scheme. Does Rule 10 apply to you? Given the length of XX1 and XX2, are you required to maneuver in any special way within a Ship Separation Scheme?

d) What special indicators must be shown during over the side diving operations?

Verified:

_____

Signature Date

7 SAFETY

Safety is always important, but it is particularly crucial at sea because of remoteness. Safety procedures must be well understood and followed at all times. The following questions may seem overly detailed, but serious accidents occur from lack of attention to details.

a) When is the Coxswain required to wear a Coast Guard Approved Life Preserver?

b) When are passengers required to wear a Coast Guard Approved Life Preserver?

c) Who is responsible for ensuring that the above two conditions are met?

7.1 General safety procedures

Everyone on the ship is responsible for safety, both for yourself and your shipmates. A thorough understanding of the safety policy in place on Ship NAME and in the small boats is mandatory.

a) Outline the ship's safety rules for the following:

Goggles.

Gloves.

Shoes.

Hardhats.

Safety lines.

Life jackets/vests.

b) Who is responsible for safety on a deployed small boat? Why?

c) Explain safety procedures transferring personnel between a small boat and the ship.

7.2 Medical

· Practical applications of medical guides and advice by radio, including the ability to take effective action based on such knowledge in the case of accidents or illnesses that are likely to occur on board ship.

a) Who is your ship's Medical Officer and EMT?

b) What medical equipment is available for use on the small boats?

a Pollution Control

The Coxswain is responsible for ensuring compliance with pollution-prevention regulations. Large fines and criminal charges can and will be brought against violators. A thorough understanding of the requirements is mandatory.

- Knowledge of the precautions to be taken to prevent pollution of the marine environment and anti-pollution procedures.
- Anti-pollution procedures and all associated equipment.

a) What would you do in the event of a fuel spill?

7. Safety - Check-Off List Name:

Knowledge of the following has been satisfactorily demonstrated:

	Signature	Date
1. Ship's safety regulations		
2. General safety procedures		
3. First-aid equipment		
4. Pollution control		

8 Coxswain Qualifications

All personnel are encouraged to improve their knowledge of small boats and ships and seamanship.

A letter from the Commanding Officer will be issued to those who successfully complete this workbook and are recommended for qualification by the Chief Boatswain.

8.1 Coxswain of a Small Boat

The individual must demonstrate his/her knowledge of shipboard and small ship operations and have satisfactorily demonstrated a thorough knowledge of the appropriate Sections of this Workbook.

Additionally, an oral examination to be administered by a senior officer or department head and another qualified Coxswain may be required. The questions are to be developed by the command and oriented on topics, policies, and procedures not normally expected of persons not in a position of responsibility. The individual may be tested on, but not limited to, the subjects listed in the Suggested Oral Examination Topics.

Operational Qualifications Name:

The following ship maneuvering and handling proficiencies will be demonstrated to the Chief Boatswain or other senior officer.

	Signature	Date
Small boat and recovery operations		
Maneuver ship from ship		
Maneuver ship to ship		
Maneuver ship to pickup objects in water		
Maneuver to position and anchor ship		
Operate the ship with backup steering system		
Other operational procedures Heavy weather operations		
Wake reduction		
Towing Operations		

Suggested Oral Examination Topics

Navigating and docking/undocking a ship in restricted waters, narrow passage, and river (currents).

Small boat deployment and recovery
- Typical operations and heavy weather conditions

Heavy weather operations
- Ship handling characteristics and constraints
- Procedures and policies
- In extremis conditions

Assisting a ship in distress

Emergency evolutions
- Emergency communications, including GMDSS
- Collision/Grounding/Fire
- Loss of propulsion/Loss of steering
- Man overboard
- Loss of electronic navigation equipment
- Abandon ship

Mission related operations
- Fire arm usage while underway in a small boat

Diving procedures
- Safe dive operations/Dive emergency procedures

Fueling procedures

Oil spill procedures

Beach Landing procedures

NOTE TO COMMANDS: This workbook is provided as a template only which is at your discretion to modify and tailor to your individual needs. The format of this template should be followed to ensure uniformity throughout the fleet, however the sectional content may be modified to suit your needs. You may also deem it necessary to add sections relevant to your operations.

Small Boat Crewmember Personal Qualification Sheet

SMALL BOAT CREWMEMBER COVERSHEET HERE

1. **Duties:** Describe in detail the duties that you may be called upon to perform.

   A. Helm

   B. Lookout

   C. Towing watches

   D. Anchor watches

   E. Secure towing and mooring lines

   F. Assist in scientific operations

   G. Assist in emergency operations

   H. Other duties as required by the coxswain

2. **Communications:** Demonstrate a working knowledge of all communications systems installed on the small boats, internal and external.

   A. What equipment and channels are used for small boat to SHIP NAME communications?

   B. List the station identifiers used aboard SHIP NAME.

   C. Describe the basic format of verbal traffic between ships.

   D. What equipment is for ship-to-boat (non-NOAA) communications?

   E. List any other frequencies SHIP NAME monitors. (handy to know if you have to contact the ship and you have radio problems)

   F. Describe the emergency communications systems on board the small boat, including EPIRBS, RADAR reflectors etc. Describe when they would be used.

3. **Emergency procedures:** There is always potential for emergencies when conducting small boat operations. As a small boat crewmember you are responsible for assisting the Coxswain in emergency procedures followed aboard the Small boat.

   A. What equipment is on board for rescuing a person (conscious and unconscious) in the water?

   B. What emergency signaling devices are stored aboard each small boat?

   C. Describe the location of emergency signaling devices aboard each boat.

   D. When and why would you expect to use the different types of signaling devices?

4. **Fire fighting:** Fire aboard any ship is a serious matter. Understanding how to act based on the type of fire and the equipment at hand is an important part of a crewmember's training.

   A. What equipment is available for fire fighting on the various small boats?

   B. Where is the fire fighting equipment located?

   C. How would you combat each type of fire on a small boat?

   D. What steps would you take in case of fire?

5. **Flooding:**

   A. What would you do if the boat began taking on water?

   B. Where is the hand bilge pump located? How does it work?

6. **Collision & Grounding:**

   A. What should you do if the small boat is involved in a collision?

   B. What should you do if the small boat is grounded?

7. **Abandon Ship:**

   A. Would you ever abandon a small boat in the event of flooding or capsizing?

   B. Describe your actions should the small boat capsize.

   C. What is "parbuckling"? When would you perform this action?

8. **Man Overboard:**

   A. As crewmember, what should be your immediate actions if you saw a man fall overboard from a small boat?

   B. What are the duties of the Coxswain during a man-overboard rescue? NOTE - There are several acceptable "man-overboard" procedures

   C. How would you bring an unconscious victim aboard?

9. **Towing:**

   A. Can you use XX1and XX2 for towing operations?

   B. Describe how to make a ship fast for side towing using XX1or XX2. Can you use one piece of line for side towing?

   C. Stern towing: What should you watch for when towing astern?

10. **Marlinspike Seamanship:**

[NOTE: Card Carrying ABs can skip this section.]

A. What ground tackle is supplied aboard the small boats?

B. What is the total length of anchor line on the XX1and XX2?

C. Define the following:

1) Knot

2) Bend

3) Splice

4) Bight

5) Turn

6) Round turn

D. List of Knots (Demonstrate): When would you use these in the small boats?

1) Bowline

2) Square Knot

3) Clove Hitch

4) Half hitch

5) Round Turn and 2 half hitches

11. **General safety procedures:** Everyone on the ship is responsible for safety, both for yourself and your shipmates. A thorough understanding of the safety policy in place on SHIP NAME and in the small boats is mandatory.

A. When are you required to wear a Coast Guard Approved Life Preserver?

B. When are passengers required to wear a Coast Guard Approved Life Preserver?

C. Who is responsible for ensuring that the above two conditions are met?

D. Outline the ship's safety rules for the following:

1) Goggles.

2) Gloves.

3) Shoes.

4) Hard hats.

5) Safety lines.

6) Life jackets/vests.

E. Who is responsible for safety on a deployed small boat? Why?

F. Explain safety procedures transferring personnel between a small boat and the ship.

12. **Medical:** Practical applications of medical guides and advice by radio, including the ability to take effective action based on such knowledge in the case of accidents or illnesses that are likely to occur on board ship.

A. Who is your ship's Medical Officer and EMT?

B. What medical equipment is available for use on the small boats?

13. **Practical Demonstrations:** These demonstrations should be conducted to the satisfaction of a qualified small boat coxswain.

A. Make a call to the parent ship on the small boat's radio; during the call, switch working frequencies.

B. Assist the coxswain in bringing a person (or equivalent) from the water into the boat.

C. Make fast the small boat to a pier.

D. Make fast the small boat to the parent ship while making way.

E. Assist the coxswain in 2 launch and recovery operations.

F. Demonstrate basic proficiency and understanding of the small boat's throttle controls.

G. Show where the fire extinguisher(s) are located.

H. Spend no less than 2 hours in a small boat under the supervision of a qualified crewmember and coxswain.

Small Boat Coxswain Certification Letter Template

Ship Name

Date

MEMORANDUM FOR: I.M Rizzo, Able Bodied Seaman

FROM: XXX, Name, NOAA
Commanding Officer, NOAA Ship XXX

SUBJECT: Certification as NOAA Ship XXX Small Boat Coxswain.

Congratulations! Effective this date, you are hereby designated as Small Boat Coxswain for any small boat deployed from the NOAA Ship [*ship name*].

This letter certifies that you posses all the skills required to maintain competent watch and to supervise others aboard our Small Boats and that you have met all the requirements for this position as defined by the NMAO Ship Small Boat policy.

This certification is non-transferable to other another NOAA ship without the consent of her Commanding Officer.

As with all of my Coxswains, I expect you to comply with my Standing Orders and to help me enforce them. Bear in mind that my responsibility as Commanding Officer is absolute. That means that any temporary delegation of authority does not relieve me of command responsibility for the safety of the ship and for all Small Boats operating from it.

I fully expect that all assigned tasks and missions will be carried out with vigilance, diligence, and dispatch and. I expect you to represent me with dignity, tact, and professionalism.

cc: MOP1
MOA1
Performance Record

Small Boat Crewmember Certification Letter Template

Ship Name

Date

MEMORANDUM FOR: I.M Rizzo, Able Bodied Seaman

FROM: XXX, Name, NOAA
Commanding Officer, NOAA Ship XXX

SUBJECT: Certification as NOAA Ship XXX Small Boat Crewmember.

Congratulations! Effective this date, you are hereby designated as Small Boat Crewmember for any small boat deployed from the NOAA Ship [*ship name*].

This letter certifies that you posses all the skills required to assist the Small Boat Coxswain in maintaining competent watch and that you have met all the requirements for this position as defined by the NMAO Ship Small Boat policy.

This certification is non-transferable to other another NOAA Ship without the consent of her Commanding Officer.

As with all of my Small Boat Crewmembers, I expect you to comply with my Standing Orders and to help me enforce them.. Bear in mind that my responsibility as Commanding Officer is absolute. That means that any temporary delegation of authority does not relieve me of command responsibility for the safety of the ship and for all Small Boats operating from it.

I fully expect that all assigned tasks and missions will be carried out with vigilance, diligence, and dispatch and. I expect you to represent me with dignity, tact, and professionalism.

cc: MOP1
MOA1
Performance Record

Temporary Coxswain Designation Memo

Ship Name

Date

MEMORANDUM FOR: RADM Nicolas A. Prahl, NOAA
Director, Marine Operations Center

FROM: XXX, Name, NOAA
Commanding Officer, NOAA Ship XXX

SUBJECT: Temporary Appointment of Non-Certified Coxswain

In accordance with the NMAO Fleet Small Boat Policy, I have temporarily assigned AB Rizzo as Coxswain of the [*small boat name*] Class [*x*] Small Boat. The purpose of this appoint is to perform [*mission*]. This appointment is necessary because [*reason*].

This designation will terminate on [*date*] when the mission will be complete.

Although AB Rizzo has not had the required training nor completed the full certification process, I have weighed the risks as listed in the NMAO Fleet Small Boat Policy against the benefits and am confident in the need of this temporary appointment.

cc: MOP1
MOA1